

# Boating 101

## Terminology of a Boat

**Bow**

The front of the boat

**Stern**

The back of the boat

**Port**

The left side of a boat  
looking forward

**Starboard**

The right side of a boat looking forward

### HINT For Remembering

Port/Left have less letters than Starboard/Right

Bow

Port  
Side

Starboard  
Side

Stern

**Forward**

Toward the front of the boat

**Aft**

Towards the rear of the boat

**Ahead**

In the direction beyond the front of the boat

**Astern**

In the direction beyond the back of the boat

**Abeam**

A direction at right angles to the side of the boat

Ahead

Forward



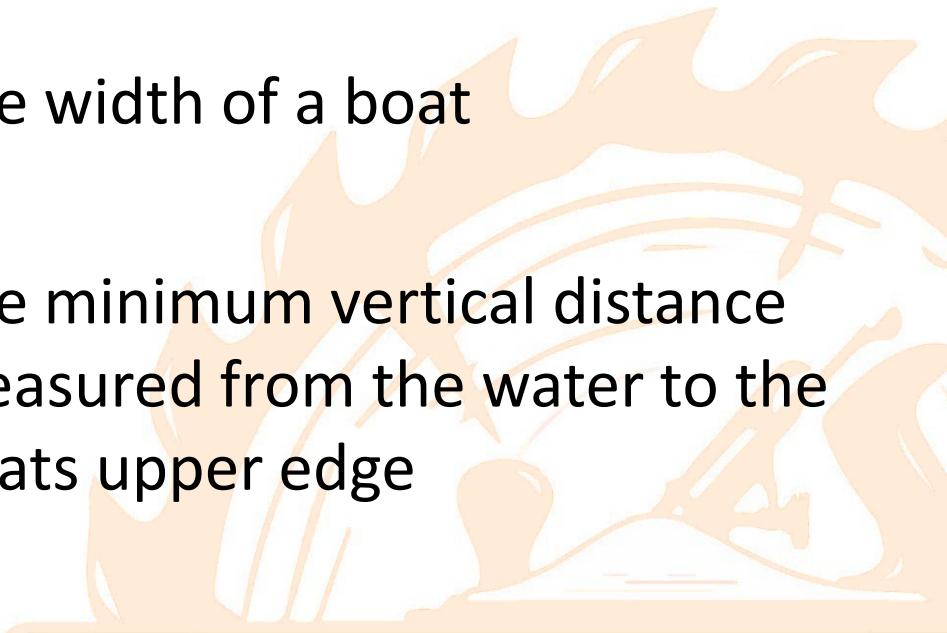
Abeam

Aft

Astern

## Beam

The width of a boat



## Freeboard

The minimum vertical distance measured from the water to the boats upper edge

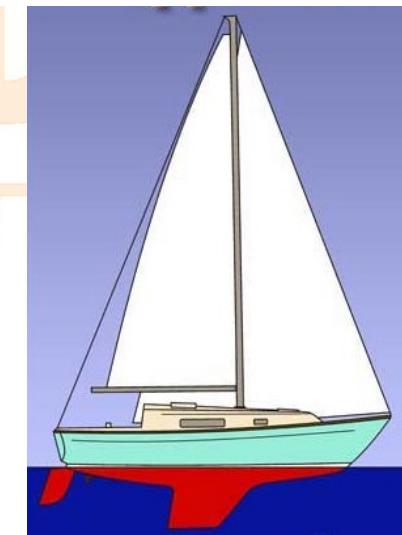


## Draft

Minimum depth of water needed to float a boat

## Keel

On a sailing vessel, the underwater member designed to resist lateral (Side) movement. On other vessels, the main front-to-back structural member of a framed hull (Backbone)





**Boating 101**  
**Parts of a Boat**

**HIGHLAND**



**WOODWORKING**

**Hull**

A boats shell

# HIGHLANDER

**Gunwale**

The upper edge of a boats side



**Transom**

The outside part of a boats stern



**Cleats**

A T-shaped fitting used to tie lines to.



## Chock

An open metal fitting which a line is fed through to a cleat



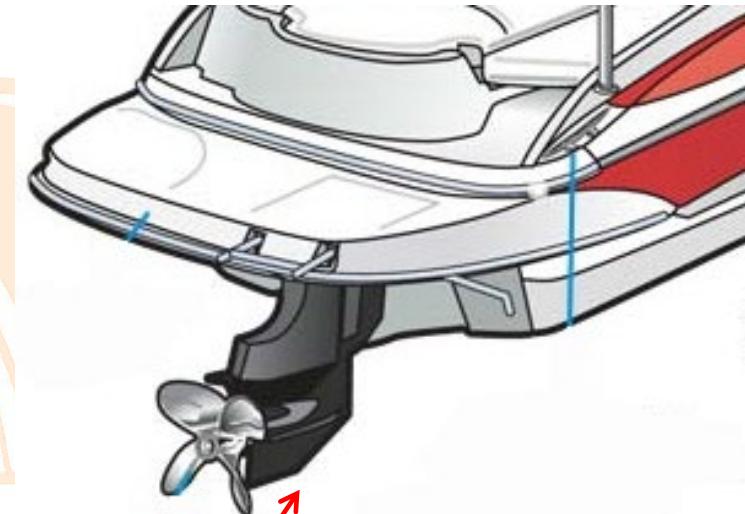
## Rudder

The underwater portion of a steering system



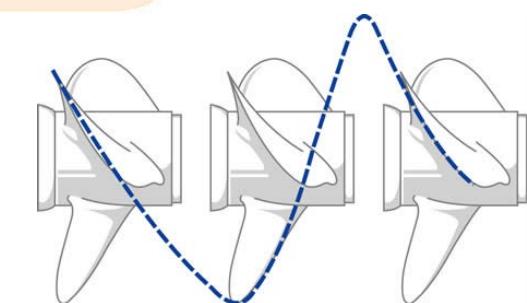
**Leg**

Lower portion of an outboard motor



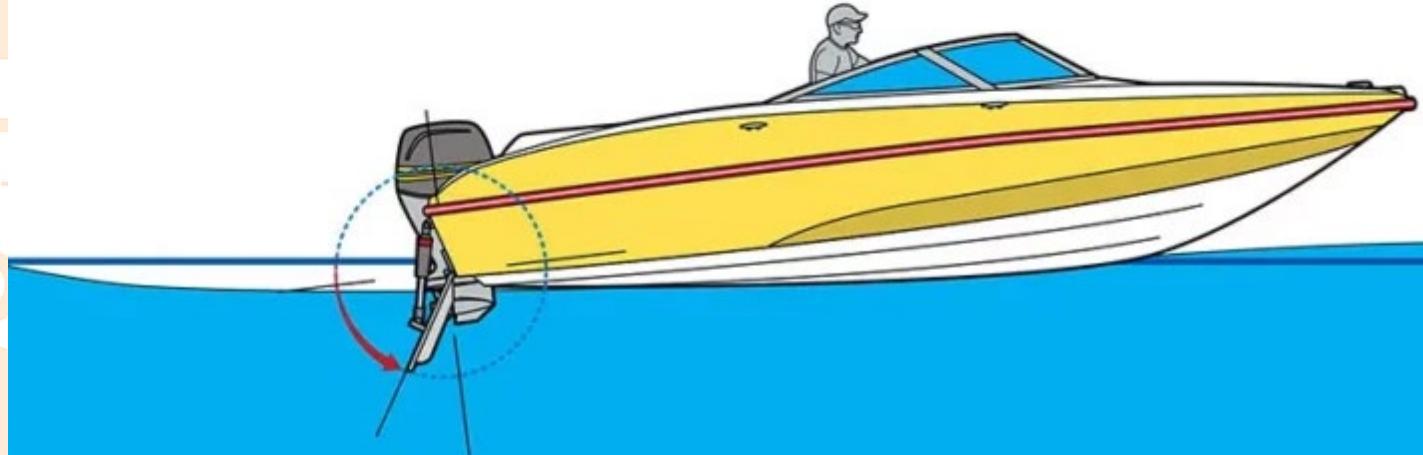
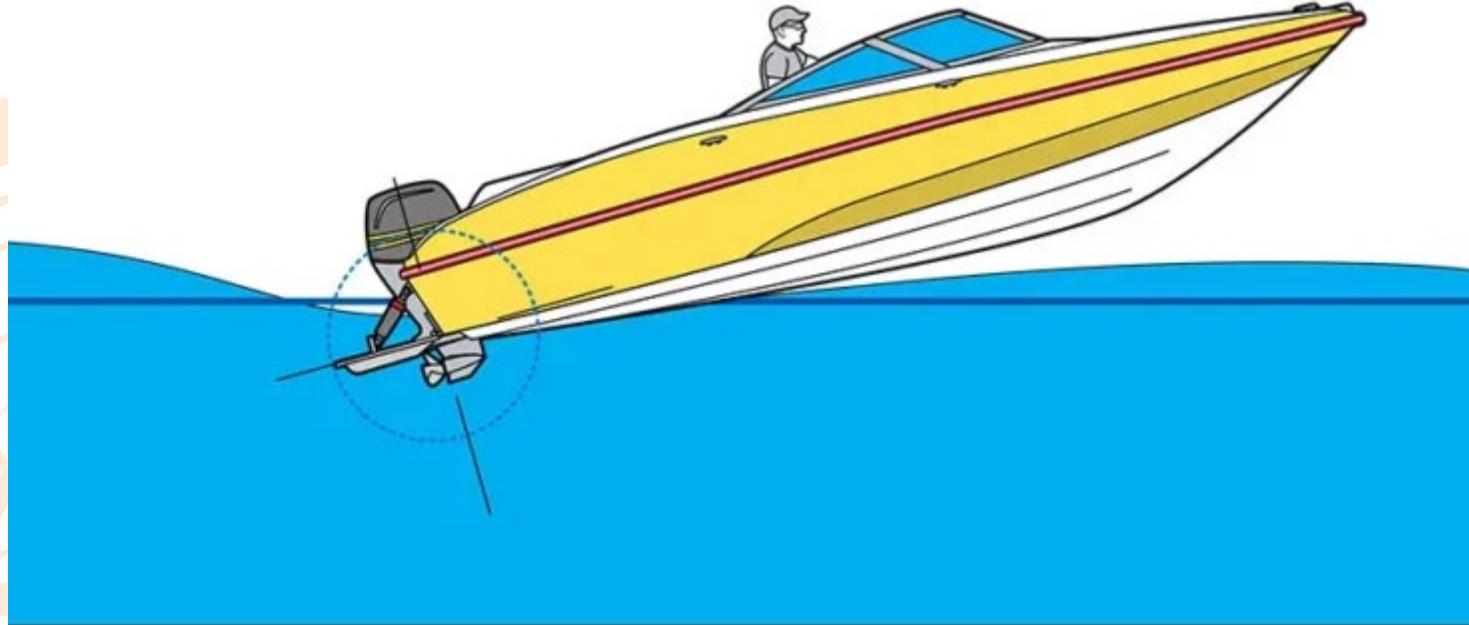
**Propeller**

Used to push the boat



## Trim Tabs (Trimming a Boat)

adjustable plates on a boat's transom that control its running angle, stability, and fuel efficiency by reducing bow rise, leveling the boat against uneven weight or wind, and helping it get on plane faster. Stop porpoising...



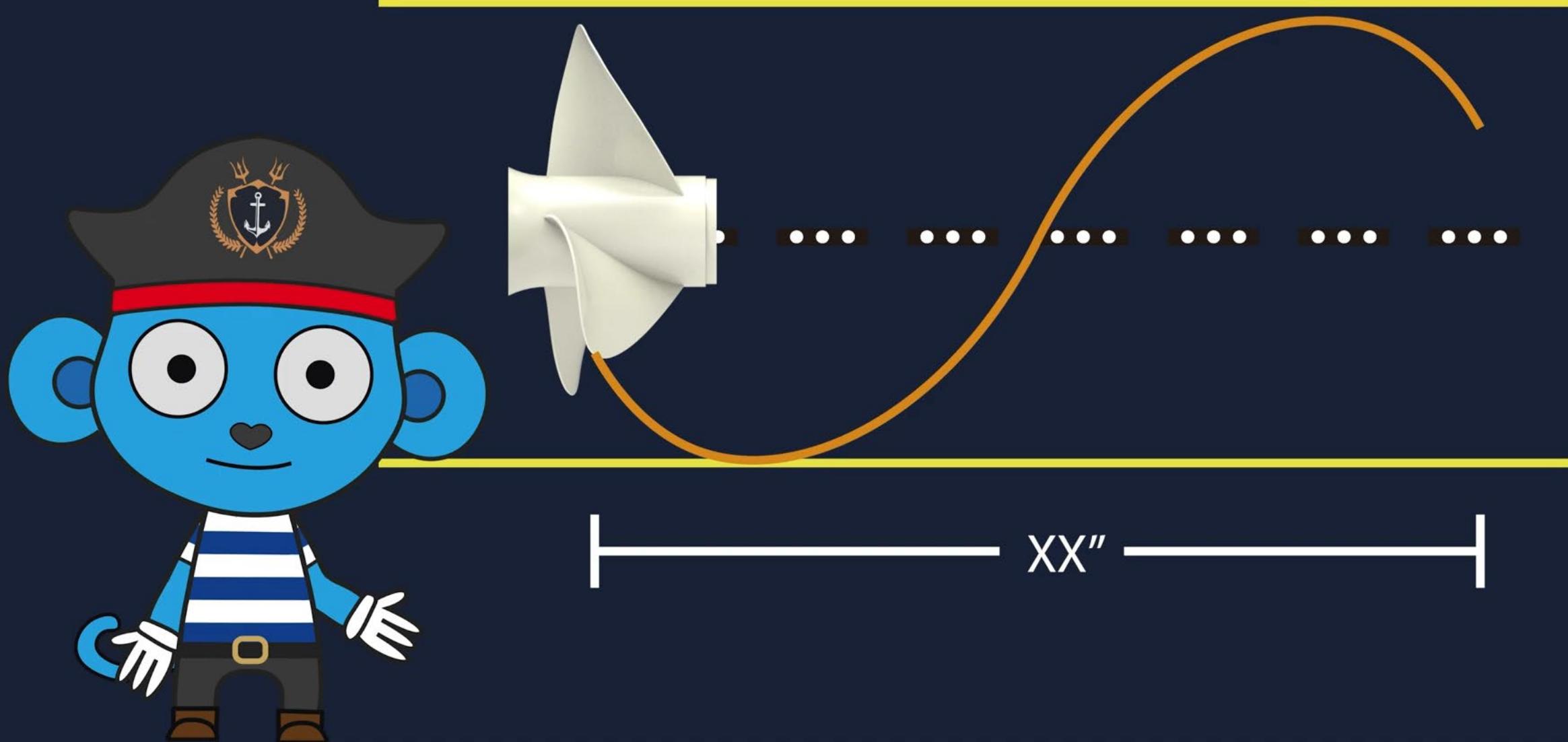


# Additional Terminology





NAUTIMUNDO





Boating 101  
**Boat Hull Designs**

**HIGHLAND**

WOODWORKING

ITF-01RC4  
2014-2015

## Displacement Hull

Boat meant to move through the water, NOT over it with a minimum of propulsion



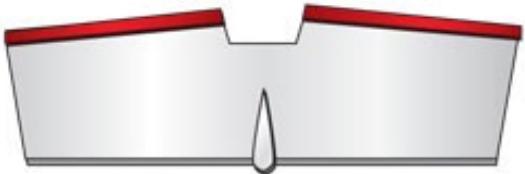
## Planning Hull

Boat whose hull is designed to skim over the water



## Flat Bottom

- Inexpensive
- Shallow draft, Plane easy
- Rough water pound



## V or Deep V

- Smoother ride,
- cuts through waves
- common for runabout boats



## Round Bottom

- Moves easily through the water but can be unstable: canoes, kayaks..
- Like to roll unless there is a deep keel or stabilizer

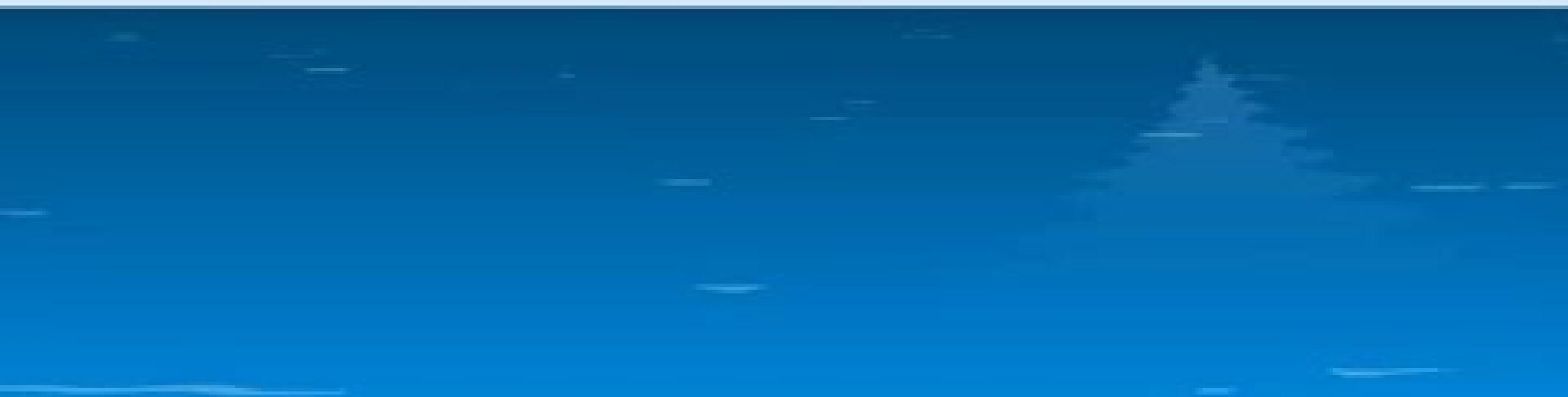


## Multi-hull

- Catamarans, House boats
- Great stability

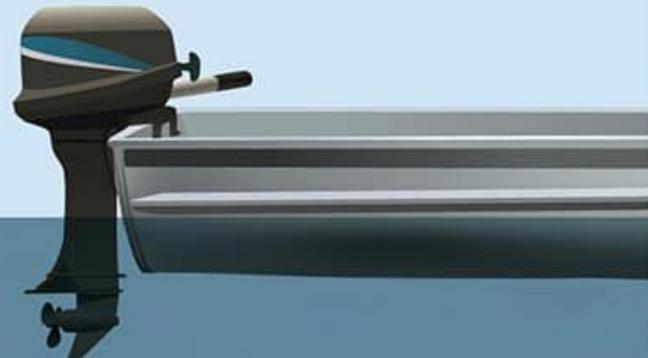


# Boat Hull types

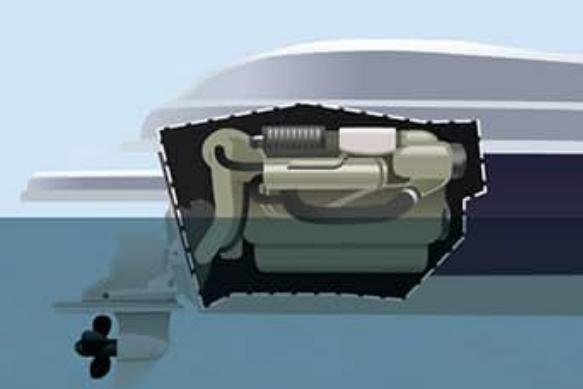


# Boating 101

## Engine Types



OUTBOARD ENGINE



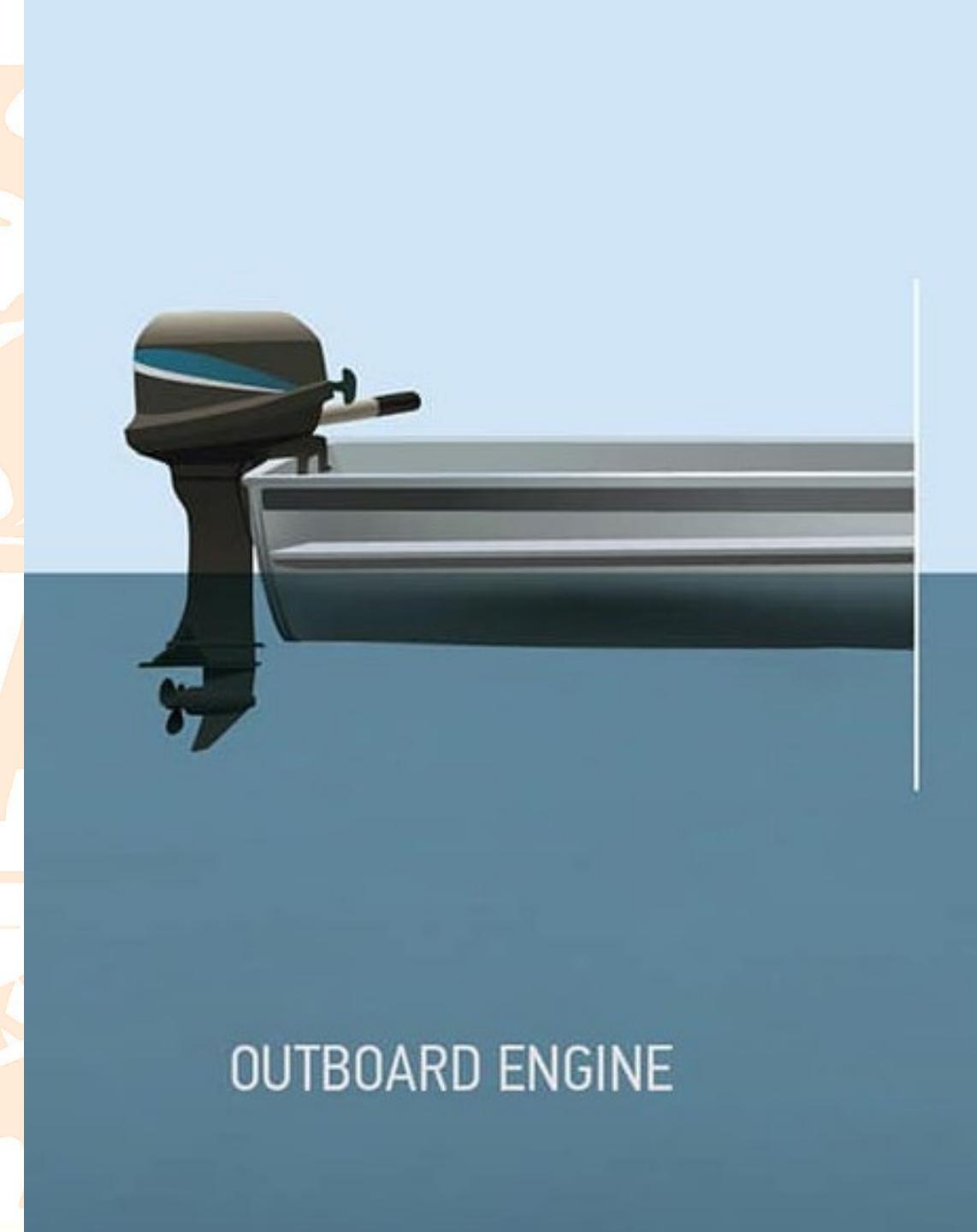
INBOARD/OUTBOARD ENGINE

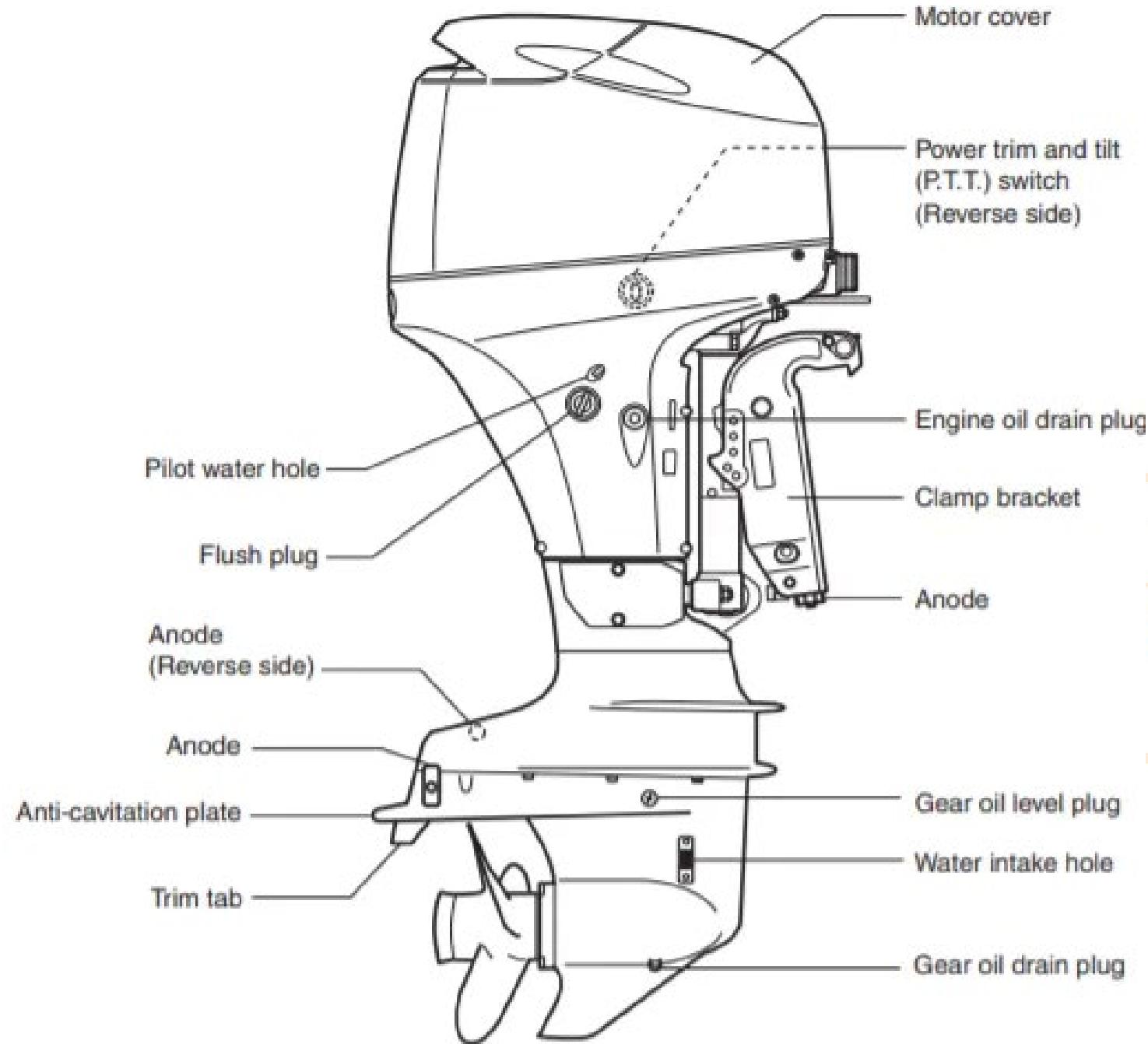


INBOARD ENGINE

## Outboards

- Popular on small boats
- Powerful for size
- Can be portable, Easy to steer
- 2 stroke vs. 4 stroke
- Can tilt up out of the water





## Inboards

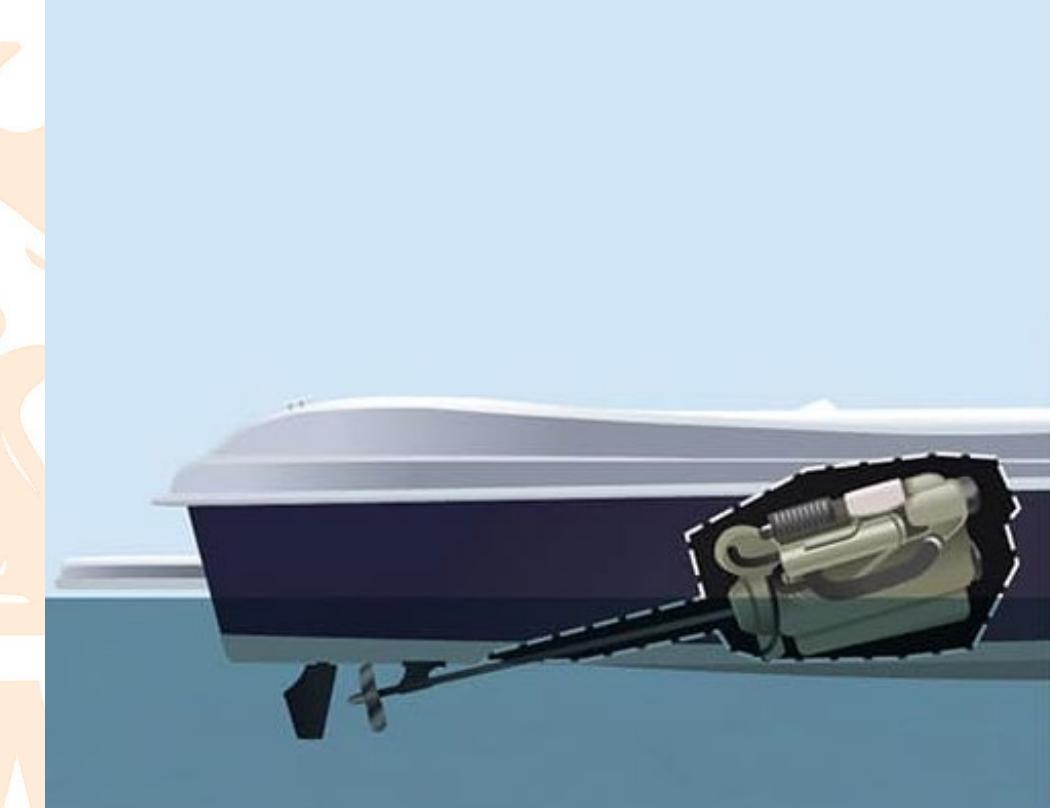
- Car engine inside the hull
- Has a shaft that goes through the hull to the propeller
- Rudder mounted behind the propeller



THE CHILA



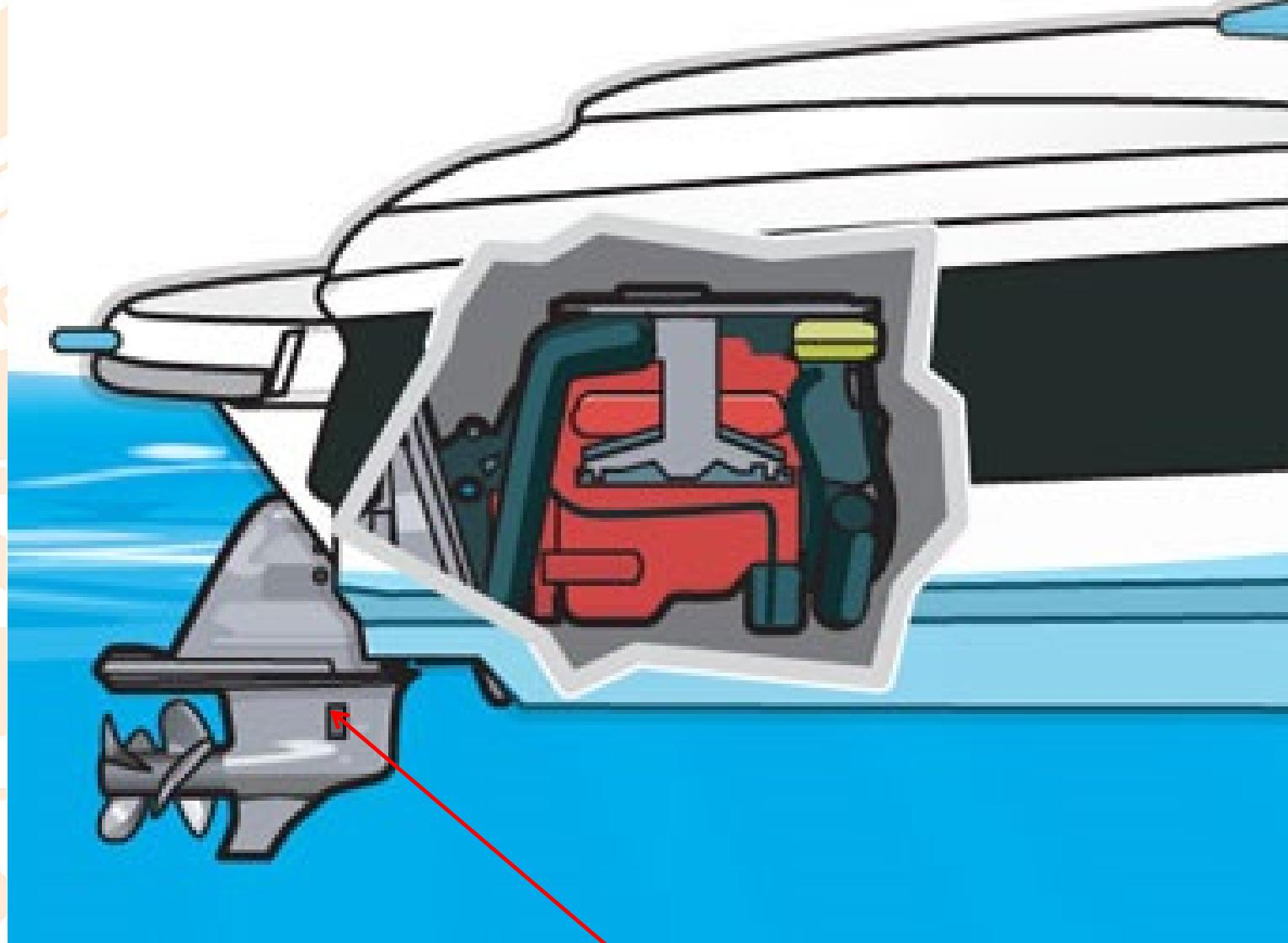
WORKING



INBOARD ENGINE

## **Stern Drive OR Inboard/Outboard**

- Car engine mounted inside
- Have a “leg” that swivels side to side and tilts up and down
- Outside on the transom



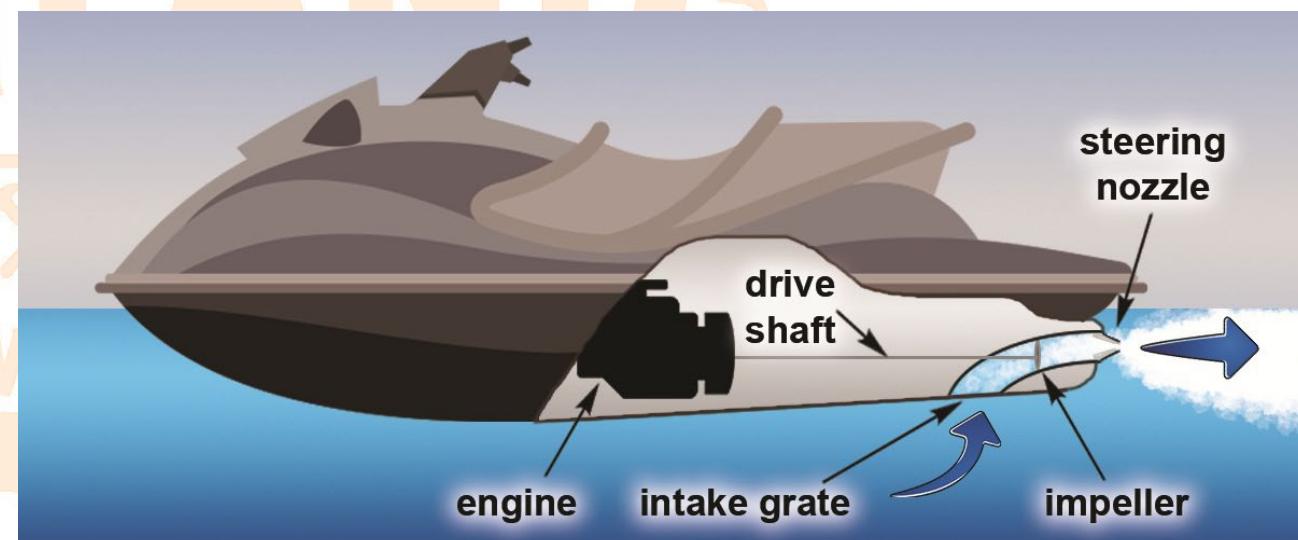
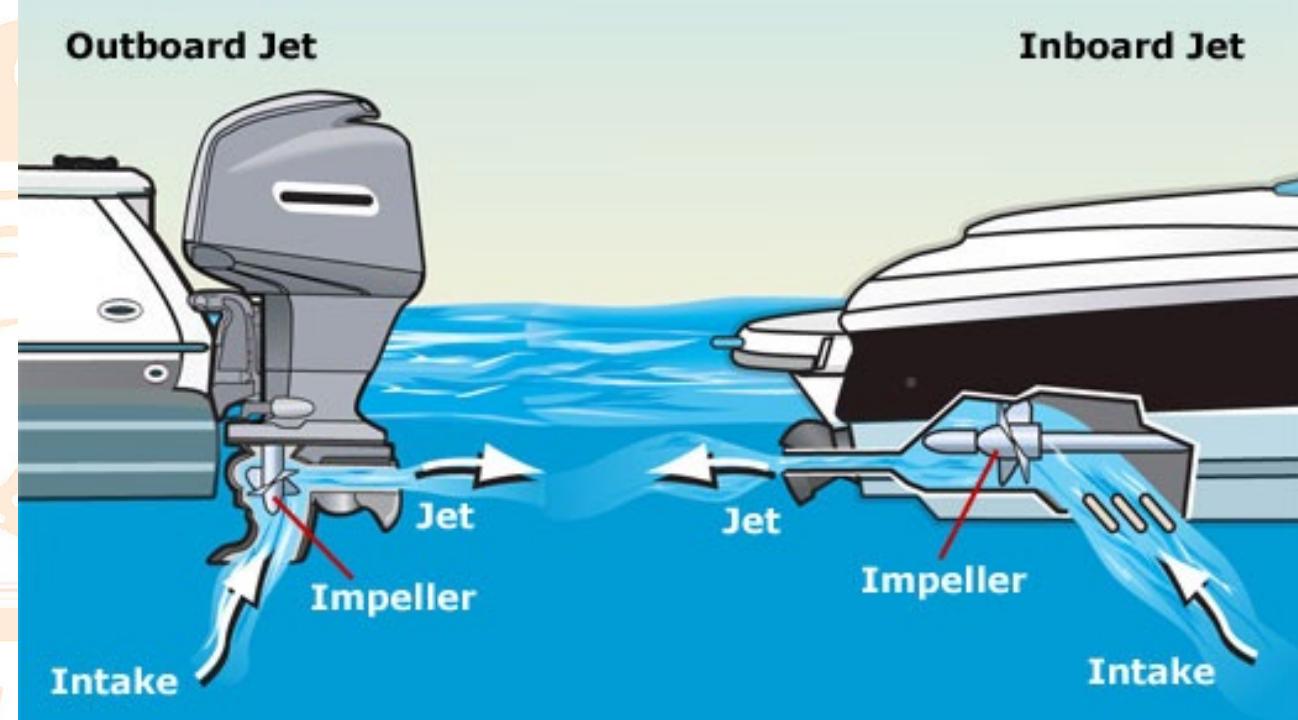
**Leg**

# Engine Types



## PWC/Jet boats

- Engine inside
- No propeller, just a nozzle
- Sucks water in, forces water out
- No rudder
- Must have power to be able to steer
- Can travel in shallow water



# Off-Throttle Steering



# Stopping Ability

